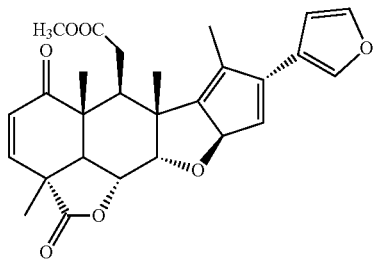
inhibition of metastasis and angiogenesis. Another component nimbin, a triterpenoid isolated from *Azadirachta indica* possess anti-inflammatory, anti-pyretic, anti-histamine and anti-fungal properties.

[0015] WO2015035199A1 provides a method for treating one or more symptoms of cancer by administering a therapeutically effective dose of a pharmaceutical formulation to the patient to ameliorate one or more symptoms of the cancer or to reduce the number of cancer cells, wherein the pharmaceutical formulation comprises Nimbolide; Nimbandiol; 2', 3'dihydro nimbolide; 28 dihydro nimbolide, or a combination thereof. The extract was examined on plasma and tumor tissues of mice at a dosage of 200 mg/kg of body weight administered orally. Targeted cancers were prostate cancer, colon cancer, astrocytoma and sarcoma. The invention provides bioactive compounds from Super Critical Neem Leaf Extract that exert anti-tumor activity. The patent claims the reduction of number of cancer cells, but the impact of reduction of cancer cells on symptoms of cancer is not known/determined/demonstrated. The extraction was carried out using supercritical CO_2 at a pressure of 632.76 kg/cm^2 and a temperature of 50° C. and collection was done at −49° C. using a dry ice/acetone bath. This huge difference between extraction temperature and separation temperature may cause unforeseen detrimental changes in the phytoconstituents. Also, the separation temperature is not commercially viable or scalable for industrial production.

[0016] CN101972246B provides an anti-tumor medicament which contains effective amount of *Azadirachta indica* triterpenoid 1 or 2 or 3 (see below) and a pharmaceutically acceptable carrier. It also provides a preparation method of a medicament which contains the compounds 1 to 3, and the application of the compounds to the preparation of medicaments for preventing and treating tumor diseases. It is provided to target leukemia, liver cancer, lung cancer and breast cancer. The extraction process was carried out by first subjecting herbs to methanol extraction and then subjecting the diluted methanolic extract to petroleum ether extraction and ethyl acetate extraction. The daily dosage varies from 0.01-10 mg/kg of body weight, with oral, parenteral, intrathecal or intraventricular administration.

1



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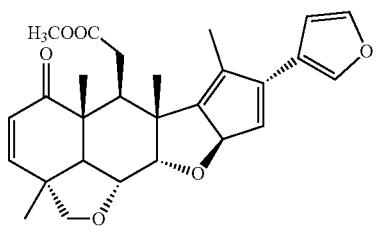

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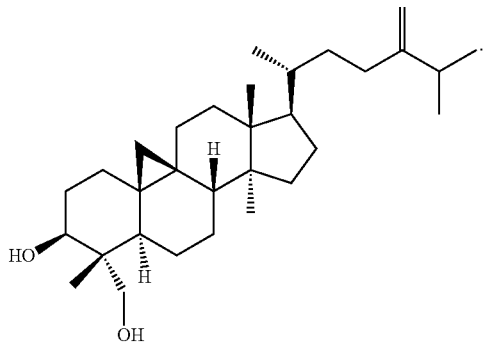

[0017] CN103864876A relates to new triterpenoid *Xylocarpus granatum* isolated from the neem tree fruit and use in the preparation of a medicine for malignant tumors particularly lung cancer and breast cancer. As stated in the patent application, pharmacological tests showed that the compound has inhibitory activity on the A-549 human lung adenocarcinoma cell line. Methanolic extract of neem tree foliage was used. It was also tested on human breast cancer cells A-549 for antitumor activity.

[0018] U.S. Pat. No. 5,370,873A relates to a purified extract of *Azadirachta indica* leaves which inhibit adhesion of cancer cells and malarial-infected erythrocytes to cultured endothelial cells. The purified extract also inhibits in-vitro vital development of human immunodeficiency virus (HIV), yellow fever virus and sandfly fever (Sicilian) virus and inhibits in vitro development of both sexual (gametocytes) and asexual (schizonts) forms of human malarial parasites. It also relates to a process for extracting purified extract from Neem leaves by soxhlet extraction, by a variety of solvents such as alcohols, acetone, pyridine, water etc. followed by passive precipitation and HPLC fractionation. The mechanism of working as stated is that due to anti-adhesive property of the neem leaf extract, the extract renders the cancer cells and infectious cells ineffective and non-proliferative.

[0019] JP2009274956A provides a composition which contains Epoxyazadiradione, gedunin, 17-epi-17-hydroxyazadiradione and 7-O-benzoylnimbocinol as active components in Neem seed extract to target leukemia, lymphomas, skin cancer, lung cancer, colon cancer, stomach cancer, breast cancer, prostate cancer, epithelial cell cancers such as thyroid cancer, bone sarcoma, etc. The extracts were obtained by using n-hexane followed by methanol and the fractionation by using column chromatography. The cytotoxic activity is based on apoptosis inducing activity of the compounds in the Neem seed extract. Also, it possesses anti-tumor activity. The test compounds were added to DMSO at concentrations of 1×10^{-4}, 1×10^{-5}, 1×10^{-6} M and its activity was tested. However, whether the effects are dose dependent, needs to be ascertained.

[0020] WO2007137389A1 provides a pharmaceutical composition for treatment of patients suffering with the human immunodeficiency virus. The composition can be administered orally. This composition comprises an effective amount of components obtained from *Azadirachta indica*; and a protein supplement. The composition is produced by immersing powder Neem in water to produce an aqueous extract.